

St. Helens Council consolidates to a virtualized infrastructure with Triangle and IBM



Overview

■ The Challenge

With 89 physical servers in its data centre, St. Helens Council lacked room for growth. As the servers neared end-of-life, it was time to re-think the IT architecture.

■ The Solution

Working with Triangle (www.triangle-group.com), the council consolidated to an architecture based on four IBM System x3850s, one x3650 and an IBM BladeCenter, using VMware to virtualize the environment.

■ The Benefits

Rack-mounted and blade servers provide high performance with a smaller footprint, freeing space. Virtualized infrastructure increases flexibility. Triangle ensured implementation met deadlines and budget targets.

St. Helens Council is responsible for providing a wide range of local government services for a population of more than 176,000 people in the metropolitan borough of St Helens, Merseyside.

The council is committed to providing excellent public service by leveraging technology – of its 8,000 staff, 64 work in the IT department. Its highly successful Web site offers an array of online services – helping local people with everything from school admissions to council tax payments.

St. Helens Council makes heavy use of IT, running IBM Lotus Notes and Domino to provide email and calendaring for 2,500 staff and local councillors, as well as a number of databases and applications that have been developed by its in-house team.

As the council strives to introduce new services and enhance existing ones, the demand for IT resources

is increasing. Some years ago, a decision was taken to increase the flexibility and scalability of its underlying IT infrastructure by replacing its mainframe with a number of Intel-based servers.

“It was a good decision at the time, but as the council’s reliance on IT increased, our data centre began to fill up with under-utilized servers,” says Ste Sharples, ICT Business Manager at St. Helens Council. “We had 89 machines – many of them reaching end-of-life – and we were getting to the point where further expansion would mean moving to a new building.”

Best of both worlds

St. Helens decided to rethink its entire infrastructure, and worked with Triangle to come up with a new solution.

“Triangle has been our partner for just over two years now, providing expert consultancy on all kinds of IT matters – from Lotus Domino upgrades to infrastructure solutions,” says Miles Harrison, Domino Team Leader at St Helens. “A big advantage of working with Triangle is its UK-wide reach – we can get their consultants on-site very quickly if we need to.”

Ste Sharples adds: “We wanted a solution that would provide some of the advantages of our original mainframe environment – centralised management, high reliability and

small physical footprint – without compromising on flexibility and scalability. Triangle came up with a great proposal that offered us the best of both worlds.”

The Triangle proposal centred around server consolidation – moving the existing IBM Lotus Domino application and mail servers onto just four rack-mounted IBM System x3850 servers, with an x3650 as DMZ and an IBM BladeCenter with HS20 blades serving Citrix. The council’s existing fibre-channel SAN (based on an IBM System Storage DS4000) was expanded with SATA disks and used as the storage environment for the new architecture.

The System x and BladeCenter servers are built around Intel Xeon processors, which provide industry-leading performance for application workload. With high memory bandwidth, high memory capacity, and high I/O bandwidth, the processors are an excellent choice for handling St Helens’ Lotus Domino workload – and their energy efficiency is ideal for thermally-sensitive, space-constrained environments like the council’s data centre.

“The IBM System x servers and BladeCenter deliver excellent performance and a robust environment for our critical applications,” says Ste Sharples. “Triangle deserves credit for ensuring that we finished the project on time and on budget – helping us meet St. Helens’ very ambitious efficiency targets.”

High-speed provisioning

The new solution effectively delivers capacity on demand for St Helens’ IT infrastructure – enabling a rapid

response to the need to develop new services and handle increasing data volumes.

Shaun Taylor, Assistant Operations Manager at St. Helens, explains some of the benefits of the new solution: “Previously, we had to buy a new machine almost every time we wanted to run a new application. With the IBM System x solution, we use VMware to create a virtual server instead – so it takes minutes rather than weeks, and we utilise the hardware much more effectively.”

St Helens uses IBM Director – a set of integrated hardware management tools – to help provide maximum availability and simplify system administration tasks. VMware technology also facilitates maintenance and disaster recovery, since an active system can be moved from a failing physical server to another machine without incurring downtime.

Miles Harrison comments: “Another advantage of the virtualized environment is that we don’t need to pay for as many licenses, as much of our software is still sold on a per-machine licensing model.”

“More importantly, the rack-mounted System x servers and the BladeCenter have a very small physical footprint,” adds Shaun Taylor. “As a result, we can use the space in our data centre much more effectively.”

Ste Sharples concludes: “By helping us consolidate to IBM System x and VMware, Triangle has delivered a solution that will deliver real value to St. Helens Council, both now and in the future.”



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